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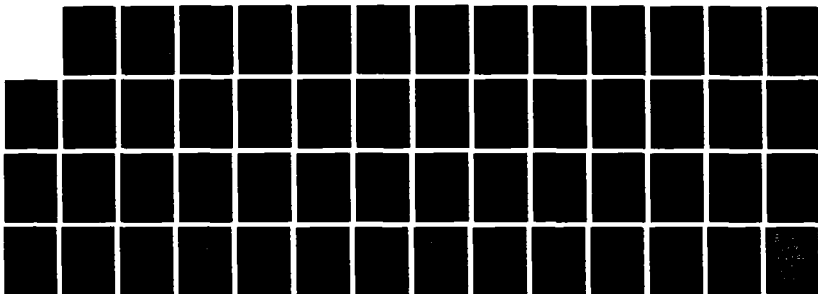
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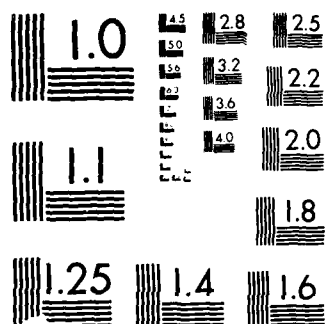
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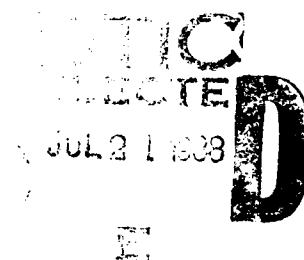
A TANK-FREE ZONE FOR NATO'S CENTRAL REGION?

by

Major Michael T. Wilson
Engineer

School of Advanced Military Studies
U.S. Army Command and General Staff College
Fort Leavenworth, Kansas

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Accepted this 7th day of May 1988.

ABSTRACT

A TANK-FREE ZONE FOR NATO'S CENTRAL REGION?
by MAJ Michael T. Wilson, USA, 48 pages.

This monograph examines the concept of a mutual tank-free zone for the European Central Region and tests its validity as a possible operational concept for NATO. The discussion assesses the military implications of the concept and its usefulness as a mechanism of applying military means to achieve political ends. This issue is important because NATO leaders are looking for ways to strengthen deterrence and conventional defense at relatively low economic and political costs to their governments. The tank-free zone concept may be recommended as a serious proposal for future arms control talks as a method to reconfigure and realign conventional force asymmetries.

The discussion begins with a contemporary perspective of the current NATO defensive capability and orientation. The political demands of deterrence are compared with the military requirements for defense. In turn, these are contrasted against the essential requirements for strong defense as expressed by Clausewitz and U.S. Army doctrine to identify the weaknesses in the NATO approach. The capability of a tank-free zone to redress these deficiencies constitutes the analysis.

The monograph concludes with an assessment of how well the tank-free zone concept contributes to enhancing and strengthening the conventional defense of NATO, and recommends the best courses of action to pursue. The study suggests that the tank-free zone is not militarily supportable until significant technological improvements in NATO anti-tank weaponry are realized.

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SECTION I: INTRODUCTION

The success of NATO as a peacetime defensive alliance is virtually unique in modern history. It has withstood several attempts of Soviet and Warsaw Pact intimidation and has weathered many internal storms as well. The specter of nuclear warfare has been a subject of intense interest and discussion among the United States and Western European nations since the inception of the Alliance. Recently, the successes of certain Western political initiatives such as the Intermediate Range Nuclear Force (INF) treaty have had a profound effect on public opinion, political negotiation and military thinking. The willingness of NATO to pursue and follow through with the challenging demands of the INF treaty has been viewed as a symbol of Alliance resolve and strength of purpose. It has also set a timely precedent for future arms control negotiations. After many years of stalemate and indecision over negotiations on strategic arms limitations and mutual force reductions, the INF agreement has demonstrated the increased willingness of the USSR to negotiate significant arms control and force reduction issues.

The time is excellent for the West to seize the initiative in further arms control and force reduction measures. Many Western political leaders recommend pursuing corresponding reductions in conventional arms deployments. The United States has the opportunity to take the lead in putting forth a sound military and political proposal to force a balance of conventional military capability favorable to NATO. Increasing numbers of respected political and military thinkers are openly questioning whether or not a credible forward defense of NATO

is possible within current Alliance economic resources and manpower limitations unless major adjustments are made.

Arms control proposals must be understandable to Western European leaders. Acceptable proposals must offer greater deterrent capability and provide a higher degree of security at affordable cost. One such proposal is a tank-free zone on the European central front, the purpose of which would be to reconfigure and realign conventional force asymmetries such that neither side feels a greater vulnerability with reduced numbers and capabilities. As a political instrument of strategic policymaking, the tank-free zone concept might well be a serious proposal for upcoming arms control talks. Militarily, it offers a sizable operational and tactical impact that would have major implications on forward defense, deterrence, force structure, dispositions, doctrine and war plans.

The purpose of this paper is to examine the concept of the tank-free zone and test its validity as a possible operational concept for NATO. The monograph will assess the military implications of the concept and its efficacy as a mechanism of applying military means to achieve political ends. The focus of this monograph will be confined to the Central Region of Europe; specifically the area of Germany bounded by the Inter-German Border (IGB) separating NATO from the forces of the Warsaw Pact. It will address the conventional aspects of ground theater defense in the region and will not examine nuclear weapons or air forces. For the purposes of definition, a tank is considered to be a strongly armored, fully tracked combat weapon system having a main gun armament of 90mm or more. The boundaries of the tank-free zone, defined in various terms in the analysis, can be considered to be a belt of

territory approximately 50km in depth paralleling each side of the IGB.

The NATO conventional defense structure will be examined and compared against two doctrinal and theoretical perspectives: that the defense can be the stronger form of war, and that the concept of the center of gravity has operational relevance for the defense of the central front. These will be framed by a comparison of the political ends and the strategic aims of the Alliance and the military means of carrying them out. The validity of the tank-free zone concept and its potential applicability to the defense of NATO would be assessed.

SECTION II

CONTEMPORARY PERSPECTIVE OF THE NATO DEFENSE

The NATO Alliance was established in 1949 for collective defense against outside aggression, especially from the Soviet bloc. The formidable capabilities of Warsaw Pact military forces are familiar to most readers. Generally speaking, its conventional ground forces outnumber those of NATO in virtually every category, including personnel, division equivalents, tanks, artillery, anti-tank missiles, armored personnel carriers and attack helicopters. A numerical superiority of modern main battle tanks deployed in the Central Front favors the Soviet coalition by a factor of at least two to one.¹ In addition to their numerical and offensive strength, the armies of the Warsaw Pact benefit from relatively well standardized (mostly Soviet) military equipment and a large mobilization infrastructure that can bring several million citizens to arms to reinforce their already

extensive and powerful standing forces. The Soviets, in particular, have been improving the technological capabilities of their forces. Reactive armor, currently being fitted onto all Soviet tanks in the Central Region, is capable of protecting against most NATO anti-tank guided missiles and a large percentage of tank-fired main gun ammunition.² This makes NATO extremely vulnerable to the premier offensive arm of the Warsaw Pact ground forces, its armored formation. This situation is unquestionably threatening.

This threat assessment has not been lost on the member nations of the NATO Alliance. Indeed, this shared perception of national danger and the commitment to collective security form the framework of the Alliance charter. Preserving the integrity of the NATO coalition is the basic aim conjoining its members. Article 5 of the North Atlantic Treaty affirms that an attack against one member of NATO constitutes an attack upon all, and that the NATO Security Council will direct measures..."necessary to restore, and maintain international peace and security."³ In theory, then, the security and the risk to each NATO member is equal despite their geographical proximity to the communist empire to their east.

The strategy of NATO is deterrence, the prevention of war. Preservation of peace is the dominant political objective. To enhance deterrence, NATO adopted the strategy of Flexible Response in 1967. The term flexible response describes the key characteristic of the strategy as an orientation that combines conventional military defense with the threat of deliberate escalation into nuclear confrontation. In spite of the ability of the Warsaw Pact military to meet or exceed the conventional and nuclear capabilities of its NATO counterpart, the

strategy of the Alliance has continued to be effective for more than twenty years.

NATO is a defensive coalition by charter, and the desired end state of a conflict between it and the Warsaw Pact will be the restoration of lost territory and a resumption of the status quo ante bellum.⁴ The strategy rejects an unconditional victory and imposed dominance over a vanquished enemy. Rather, it poses a credible threat of unacceptable risk to potential aggressors. Flexible Response denies the enemy a calculable risk, thereby enhancing deterrence. The aim of the NATO strategy is to create for the Soviets and their surrogates a threshold of reluctance that will drive their confidence levels down to a safe level for the West.

The sixteen NATO nations genuinely are concerned with protecting themselves from communist domination. At the same time, they are committed to preserving democratic free enterprise and economic growth. Competing demands for resources between the civilian and military sectors have constrained military force structures and defense establishments. For a coalition that has found itself increasingly hard pressed to maintain militarily strong conventional defense forces, nuclear arsenals have lent a credible and reliable component of deterrence at economically attractive levels. Instead of trying to match Warsaw Pact capabilities tit for tat, NATO has maintained the size and dispositions of its conventional forces at such a state that Warsaw Pact planners will have to consider that a nuclear response by an invaded West will be highly probable. This has been an undeniably risky strategy, but it has managed to hold up as a deterrent. However, the margin of confidence grows progressively narrower.

The apparent success of the INF treaty has spurred general public euphoria over the prospects of denuclearization. A radical downward change in the nuclear force balance could destabilize deterrence such that significant conventional force adjustments would have to be undertaken. Increasing conventional capability commensurate with decreasing nuclear capacity could decouple one from the other, and be quantitatively much more expensive.⁵ This dilemma frames the military content of conventional deterrence and defense in NATO.

The direct, conventional protection of NATO territory is called "Forward Defense". The intent of forward defense is to hold the enemy as near to the Inter-German Border as possible. There are several prudent reasons for doing so. Providing the defense holds, the least amount of territory is yielded to the enemy. This is of particular importance to West Germany because of the lack of geographic depth and defensive maneuver room. Almost 30% of the population and 25% of the industrial base of the Federal Republic is contained within the 100km wide zone immediately west of the IGB. (See Figure 1).⁶ This strip of land encompasses the major cities of Hamburg, Hannover, Nuremberg and Frankfurt. Forward defense also provides the best opportunity to exploit the threat of using tactical battlefield nuclear weapons on Warsaw Pact territory.⁷ Furthermore, evacuating friendly territory without fighting in order to create operational depth on NATO's own soil would not be understood by the European people or be acceptable to the German government, which has directed a "stay put" policy for the civilian inhabitants. The Federal Republic is adamantly opposed to turning the nation into a maneuver zone for battling armies. Depth will not be achieved at the expense of NATO territory. From the West

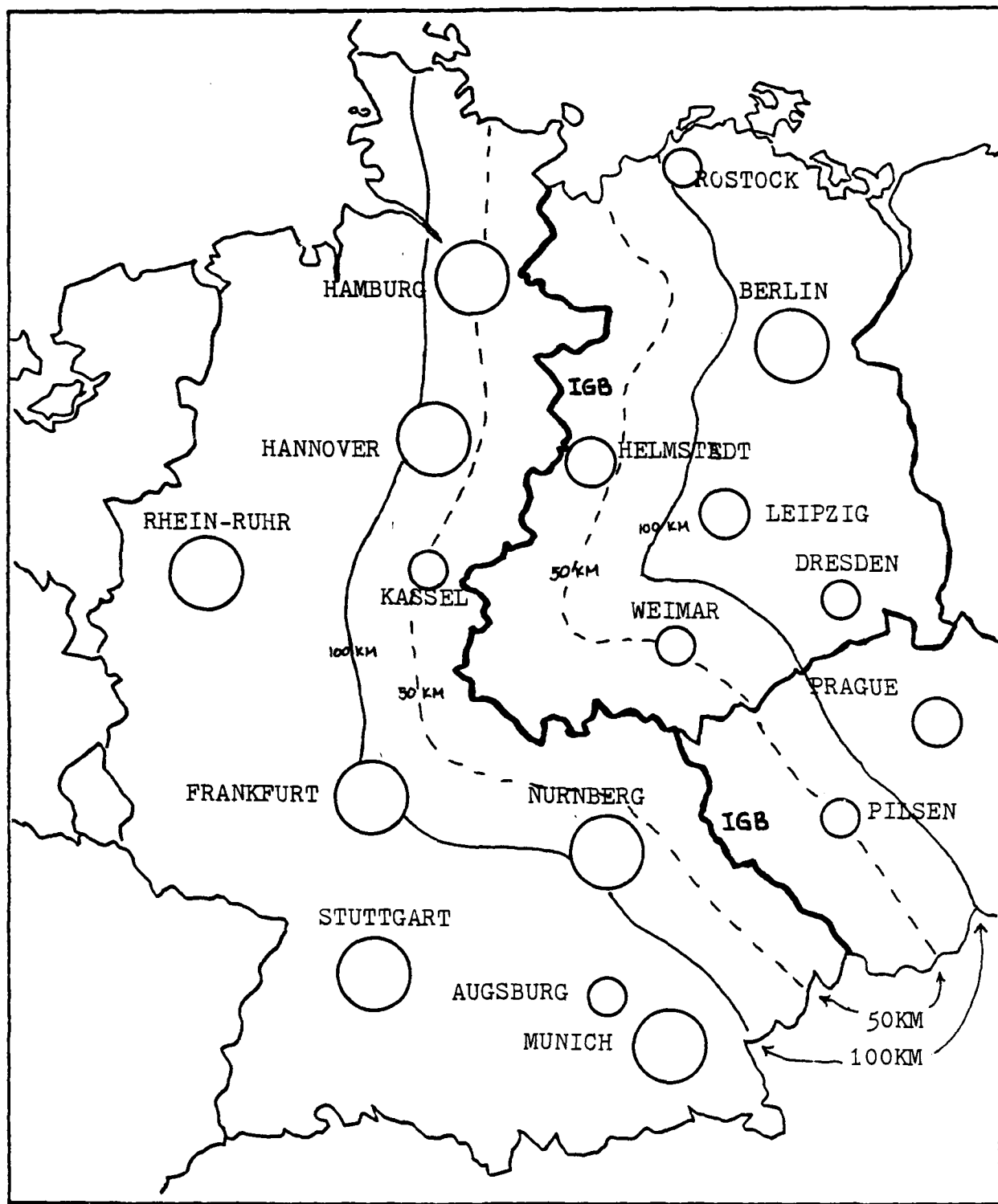


FIGURE 1: Germany and Czechoslovakia, showing the IGB, Major Industrial and Population Centers, and Zones of 50KM and 100KM.

German point of view, the policy of forward defense is unassailable.⁸
No part of NATO soil is considered negotiable.

The resulting operational demands upon the NATO Allied Army Group commanders due to these constraints is great. As an example, the stationing of forces from six allied nations on German soil is done primarily for the purposes of deterrence and political cooperation. The forces of each nation are assigned a defensive sector running from west to east and terminating along the IGB. (See Figure 2). This convention is often referred to as a "layer cake", wherein each army corps from north to south represents a "layer." In theory, this posture bolsters cohesion by causing the defending forces to share equal risk, thus demonstrating to the communist bloc that no part of the Central Region can be attacked without affecting the whole Alliance. Unquestionably, this system lacks operational flexibility, creates logistical problems, and denies operational interchangeability. But the advantages with respect to deterrence are considered to outweigh the military disadvantages.⁹

Additional political constraints help reinforce the difficulties of NATO's approach to defense and warfighting. The West Germans strongly resist fortifying the frontier in peacetime against a threat from the east. Such an action is perceived politically as a willingness to accept the permanence between the two Germanies. In addition, the Alliance pledges not to engage in preemptive strikes against threatening aggressors or to attack across its borders with ground troops into Warsaw Pact territory.¹⁰ However, counterattacks to restore borders and the NATO Commander's concept of Follow-on Forces Attack (FOFA) using air, artillery, and electronic warfare assets are considered within the

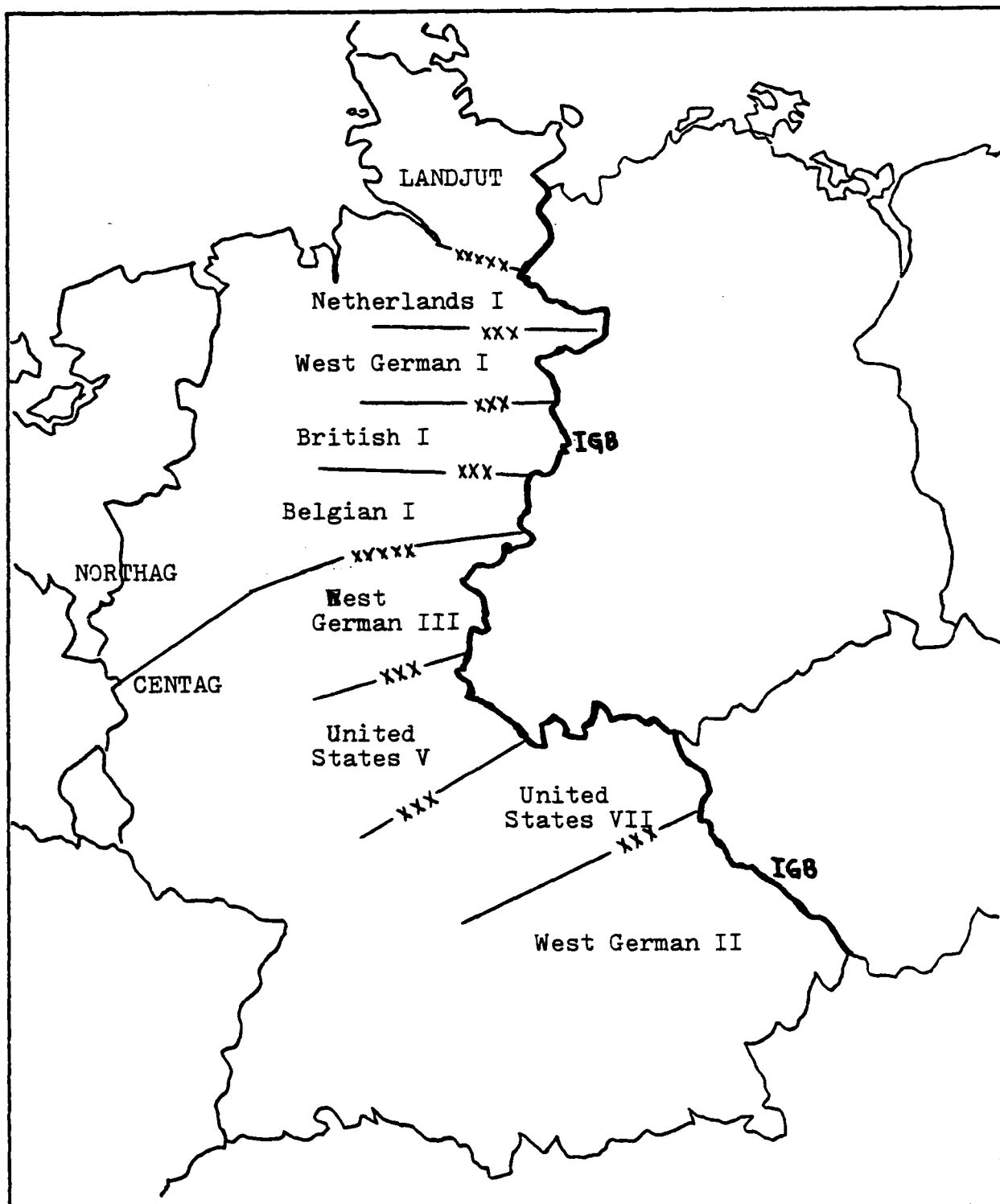


FIGURE 2: The NATO Central Region showing the "Layer Cake" Defense of Multi-National Corps

spirit and intent of the Atlantic Charter.¹¹

The INF agreement has been widely applauded as a positive arms control initiative and a shrewd political move, but it has not helped alleviate NATO's conventional military force imbalance or improve the prospect for a successful forward defense. The strong armored threat of the Warsaw Pact remains undiminished. NATO military leaders continue to look for increased confidence to conduct close operations. Both present and past Supreme Allied Commanders, Europe (SACEUR) agree that even after INF negotiations are completed, NATO can only hope to hold back a major Warsaw Pact invasion for two weeks before having to "go nuclear."¹² They also see a need for restating requirements and improving capabilities.

The military content of the NATO defense poses a risk to the political aim of the Alliance. A credible, conventional defense within the political, economic, and force structure constraints must be found to balance the countervailing aspects of diminished nuclear deterrence. Elimination of the large Warsaw Pact advantage in tanks, for example, would help NATO's security and the Soviet economy, and therefore be in the interest of both sides.¹³ Will a tank-free zone be a viable solution to the military defensive dilemma? It will be useful to compare the NATO defense scenario with what current doctrine and respected theory have to say about the requirements for defense and deterrence.

SECTION III

DOCTRINAL AND THEORETICAL PERSPECTIVES

The key to NATO's strategy of deterrence is that it links the collective conventional defense of Alliance territory with the threat of using nuclear weapons. However, the steady advances of Warsaw Pact offensive military capabilities now either meet or surpass those of NATO's defenses in almost every category. The numerical balance favors the Soviets in both conventional and nuclear capabilities. In the light of present public opinion there are increasing numbers of respected and influential political and military thinkers who are questioning the effectiveness of the conventional/nuclear linkage and NATO's willingness to use nuclear weapons at all. This begs the question: is NATO's strategy failing?

The requirements for a strong, viable defense were described by Clausewitz more than a century and a half ago in his treatise On War. According to Clausewitz, the purpose of the defense is the preservation of the defender. A good defense cannot be merely a shield to hide behind, but must be a shield of well-directed blows against the aggressor.¹⁴ The strategic effectiveness of the defense is characterized by several factors. The defender has the natural advantage of familiar terrain and an organized theater of operations he has prepared. The defender also has the advantages of surprise, after the initial attack by the assailant, and (normally) of concentric attack directed against the penetrations of the enemy. Furthermore, the effect upon an attacker of strong and unavoidable fortifications which cannot

be bypassed can slow his momentum effectively and dissipate his mass. The defender possesses the moral advantage of popular national support because of the correctness of the defensive cause and the stigma of aggression. He has the natural advantage of being able to wait and prepare all or part of his force for action against the enemy host.¹⁵ Because of this, the defense is considered the stronger form of war. Here, Clausewitz discerns the tension between defensive and offensive action. No nation or armed force can hope to repel an invader by defense alone because an enemy can pause to gain strength, rest, and regroup before continuing to press the attack. Any invading force spends increasingly greater resources as it attacks and will inevitably wear down. The relative strength advantage of the attacker can shift to the defender at this time. Once the defender has identified this balance point and seized upon it, the defense has done its work. The defender must strike back at this time or lose the advantage. Clausewitz describes this sudden, powerful transition to the offense as the "flashing sword of vengeance", the greatest moment of the defense. The key is action: positive, decisive military action directed against the source of the enemy's strength and power, his center of gravity.¹⁶ This is why the offense, in Clausewitz's view, is the decisive form of war. Of the various techniques of conducting a defense, including an early counteroffensive (forward defense) or even preemptive attack, Clausewitz cites the defense in depth as the most advantageous for setting up the preconditions of a decisive counterstroke at the optimum place and time. A large, powerful and mobile reserve is necessary to conduct the decisive blow against the assailant. A good defense, therefore, gathers strength from its depth and has a capability to

inflict severe punishment upon an aggressor.

Another source offering defensive theory is the U.S. Army Field Manual (FM) 100-5, Operations. This doctrinal manual describes the requirements for a strong, successful defense in similar (Clausewitzian) terms. The defense must have depth to maintain flexibility and reduce the risk of a potentially catastrophic massed attack into a weakly defended sector. A mobile, active defense in most situations aids anticipation and sequencing defensive measures to disrupt the tempo of the attack and stretch the attacker to his culminating point, the point beyond which continued offensive operations risk exhaustion and defeat.¹⁷ A concentrated reserve force can then be thrown against the enemy vulnerability to threaten or damage his center of gravity decisively. The defender takes the maximum possible advantage of surprise, deception, and depth. A successful operational defense provides for the capability to launch tightly sequenced counterstrokes of such weight, power, and momentum that the attacker is stopped cold or knocked-out.

U.S. Army FM 100-6, Large Unit Operations, outlines the key concepts for a defensive operation. Deterrence must possess the qualities of credibility and survivability and express clear intent. The design of major defensive operations begins with the strategic guidance and assessment of the threat. From these, the operational commander can determine his operational concept and objectives, and visualize how to sequence operations and synchronize resources. The operational commander directly influences the outcome of operations through the mechanisms of intelligence, maneuver, firepower, sustainment and deception. These set the conditions for successful operations.¹⁸

These doctrinal and theoretical propositions indicate that, all other factors being equal, the defense should be the stronger form of war. But NATO's present defensive strategy falls short of these propositions. The Alliance is committed to deterrent and defensive actions, not offensive ones. The European treaty partners regard a strong, expensive conventional fighting force capable of defeating Warsaw Pact armies as both unnecessary and undesirable as long as the nuclear deterrent is still credible. They regard it as uneconomical to design and field such a force if they can prevent the enemy from attacking at all through threats of atomic destruction. By deliberate design, NATO's conventional forces are not as quantitatively strong as those of the Warsaw Pact and probably never will be.

The broad front forward defense concept sacrifices much of the potential for effective ground maneuver in order to protect the limited operational depth in the defensive zone. The ability to deploy combat power, synchronize operations and fires, and employ limited tactical and operational reserves for decisive counteractions within the theater is hindered by this factor. Despite a well developed and potentially very flexible theater of operations that could amass and distribute common supplies and services to all the NATO forces, the various member nations have developed unique and differing concepts and procedures for national support to their armies. These are not integrated under a NATO concept of operations or sustainment. The procedures regarding mobilization also differ widely and are tied directly to political decisions by their respective national governments. The West is unable to duplicate anything approaching the Warsaw Pact capability to assemble trained reserves.

The relatively inflexible concept of forward defense and concomitant positioning of units has ceded a large element of surprise to the enemy. Effective NATO deception along the forward defensive zone will be difficult due to sophisticated intelligence gathering means. The risky and reactive initial defense plan works against the time and space advantages of waiting and protecting defending forces from the initial assaults. This greatly hinders the operational ability to sequence operations, create positional advantages and set tactical conditions that can exploit enemy mistakes.

By intentionally defining victory as the preservation of the status quo ante bellum and not the annihilation of the enemy forces, the strategy is not a winning strategy. It is an attrition oriented defense that excludes the conditions necessary for the decisive and climactic battle that Clausewitz envisioned. The critical conventional component of the enemy armed force is its armored formations -- the Warsaw Pact center of gravity and source of strength -- which combines the greatest effects of mobility and power into offensive shock effect. NATO land forces are oriented upon preserving terrain and not targeted upon the enemy center of gravity. Doctrinally and theoretically, NATO's plan is on shaky ground.

The strategy of Flexible Response attempts to deter both by denial and by punishment. NATO's conventional forces are inadequate to do either with certainty should deterrence fail. The Alliance has not come to grips with looking beyond post-conventional failure. It rejects the notion of preemptive offensive action against even a potential or likely deadly threat. NATO has gambled on a lack of conventional credibility against Warsaw Pact reluctance to risk nuclear devastation. The tragedy

is that this is by deliberate design. The very real possibility exists that denuclearization and resultant decoupling effects may even further weaken the capability of the Alliance to deter war and defend itself. NATO's flashing sword of vengeance is a blunt political instrument which many doubt would ever be used, and which has no conventional or non-nuclear counterpart. A bodyguard of threats may one day no longer deter war.

The operational implications are clear. NATO cannot defend itself once deterrence fails without resorting to a nuclear course of action that might well spell its own destruction. Some measure of conventional defense improvement is not only prudent but vital to alliance interests. In order for the defense of NATO to succeed, it must clearly be made more credible and stronger, and present such a measure of unacceptable risk that an attacker should be convincingly deterred. If deterrence should fail, it is imperative that the attacker be convincingly defeated. A tank-free zone for the Central Region possesses serious political and military attractiveness as a potent solution to this vexing situation. Can this be the best answer?

SECTION IV

A TANK-FREE ZONE FOR THE CENTRAL REGION?

NATO must increase the level of conventional defense reliability and confidence, especially in light of the potentially decreasing nuclear deterrent. It must be able to create the conditions to cause an enemy attack to collapse should deterrence fail. The concept of a

tank-free zone, first suggested in the writings of Alton Frye and Steven Canby in the 1970s, was proposed as a method to achieve this.¹⁹ As a political proposal, a tank-free zone might be an innovative solution to one of NATO's worst dilemmas. It could be an excellent way of offsetting a dangerous Warsaw Pact military advantage. To be useful to the Alliance, this proposition will have to support the strategy of deterrence as well as provide a greater measure of security than currently exists. Can a tank-free zone benefit the operational commander or will it only serve to weaken him? Should political attractiveness outweigh military utility? To assess the solution, the advantages and disadvantages of this concept will be analyzed and weighed against NATO's political realities and military necessities.

In broad political and military contexts, a tank-free zone can be considered a confidence building measure (CBM) and a form of conventional arms control. Its aim would be to increase the trust and confidence between NATO and the Warsaw Pact by making the intentions and actions of each side clearer and more predictable to the other.²⁰ Within the tank-free zone, which would extend along the IGB for 50km into each side, only infantry and reconnaissance units (light, motorized and mechanized) armed with anti-tank (AT) weapons and light artillery and their supporting elements would be allowed. Moving the armored formations of tanks and heavier firepower further to the rear would have several advantages. First, such a deployment is less menacing to an opponent and places the tank formations in reasonably protected positions ideal for mounting counterattacks or heavier, deeper counterstrokes. In addition, any movement of tanks into the buffer zone would signal hostile intent to the other side.²¹ This would deny the

Warsaw Pact the greatest measures of surprise and deception, considered essential prerequisites to successful offensive operations. The NATO defenders would also gain warning time and the ability to deploy initial defense forces, strengthen the main battle area (MBA), and position an alerted mobile reserve. This could be a distinct advantage over the dangerous consequences of responding to a no-notice assault by the Pact under the present system of defense. Observation of the attacking forces using organic and national means would fix the direction and strength of the attacks. At the same time, anti-armor defenses of demolition obstacles, mines and precision-guided munitions (PGM) can be executed or placed into position. This would create, instead of the current NATO "layer cake" defense, an integrated, echeloned defense based upon a combination of conventional infantry and mobile reserves of armored divisions. The tank-free zone could reduce the offensive threat and increase defensive flexibility and capability, and thus strengthen deterrence.²²

The concept of defense suggested by the employment of a tank-free zone is dependent upon several factors: verification against zone violations, an altered concept of forward defense, peacetime construction of obstacles, heavier use of PGMs and anti-tank guided missiles (ATGMs), and restructuring NATO manpower requirements. Each of these needs to be addressed before exploring the military aspects of defense employing the concept of the tank-free zone.

Maintaining the inviolability of the tank-free zone would depend upon active and earnest verification measures. These confidence building initiatives would have as their aim increasing the trust and confidence of both sides that their opponents are not planning, and

would not be able to conduct, offensive preparations without the knowledge of the other party. Procedures for these CBM have already been established by the Conference of Security and Cooperation in Europe (CSCE), held in Helsinki in 1975.²³ The CSCE recommends that maneuvers of combat units in forward zones or on exercises in the area be limited in scale and strength; to approximately division size, for example. Additionally, an advance notice of at least 21 days could be required of all exercises, to include their location and duration.²⁴ Although NATO and the Warsaw Pact have not been able to come to agreement on the substance of all the CSCE proposals, these measures have been favorably entertained by both sides and are worth continued examinations. Additional CBMs can complement these proposals and increase the level of confidence afforded by the tank-free zone even higher. Permission could be extended for occasional low-level surveillance flights over all tank-free zone territory by both sides. International liaison personnel and observers from neutral nations could monitor the buffer zone and report their verifications to the central committees of both NATO and the Warsaw Pact.²⁵ These "honest brokers" would allay the suspicions of both sides against cheating or faulty reporting. Naturally, the gamut of tactical, operational and national strategic methods of surveillance and detection would continue to be employed by both sides.

One of the great snags in recent conventional arms control has been the lack of success the Vienna-based Mutual and Balanced Force Reduction (MBFR) conferences have achieved since their inception in 1973. These negotiations have been fixated on numbers of personnel and weapons systems, and have been in considerable disagreement over differences in strength figures and force asymmetries ascertained by their respective

intelligence agencies. This whole approach to arms control and confidence building has been ill-conceived.²⁶ Adoption of a tank-free zone and associated CSCE initiatives, or similar derivatives, would focus not upon numbers but on an entire category of capability.²⁷ Soviet warfare against NATO is built around the tank. It is the central element in Soviet doctrine, and is the key to defeating NATO defenses. The massed armored formations of the Pact armies are their center of gravity. The tank-free zone and its associated verification measures orients upon this center of strength and power and puts it into check before the threat of hostilities. Doctrinally, the Warsaw Pact would not launch an attack using only infantry, artillery and air assets comprising the first echelon. The NATO forces opposing them would be armed similarly. Without tanks, massive penetrations on narrow frontages to achieve rapid breakthroughs into the depths of the defenses would not be possible. The prospect of an indecisive, attrition-oriented stalemate that will not achieve swift and sure results would make the risk of initiating such a campaign unacceptable. Naturally, if one side or the other violated the zone by moving in tanks or armored formations, the other side would be immediately alerted to the former's intentions and be free to move its own heavy forces forward into the terrain best suited for its defensive design. Should the pact attack NATO across the IGB, especially in a rush or a "no notice" assault, the Alliance must already have in place the capability to receive the blow without peril. This integrated defense must either stop the attacker or buy the time necessary to hold him until NATO's operational reserves, especially the heavy armored divisions being restrained behind the tank-free zone, can be employed to best advantage within the depths of

the NATO forward defenses.

The tank-free zone, then, can be considered a specialized form of forward defense. It makes the case for changing the concept of forward defense as now conceived and employed by the NATO Alliance. The existing "layer cake" alignment described earlier accepts a great deal of military risk for political purposes.²⁸ Not only are the national forces not deployed in a manner which maximizes their strengths and capabilities, but they are also positioned so that a large percentage of their best, organic armor and mobile forces are within targetable artillery range of the border. In addition, the forward defensive posture does not achieve the maneuver depth that commanders of mobile forces want to have to create the opportunities for decisive maneuver and protection afforded by the terrain. Its orientation is tactical, linear, frontal, set-piece and pre-planned.²⁹ By attempting to be everywhere at once along the IGB, it can fail to have enough mobile and armored strength in its depths to counteract the several high intensity, concentrated armor breakthroughs that the Warsaw Pact will certainly mount. The Pact attack will be designed to pressure the defense forces constantly and thereby exhaust their capabilities. It will employ massed suppressive fire to confuse and overwhelm the NATO defenders.³⁰ Accordingly, the time that NATO will so desperately need to decipher the enemy's intentions and ascertain the location, strength and direction of his main thrust points (schwerpunkts) will be denied.³¹ In short, the current posture is vulnerable to surprise attack and rapid penetration by concentrated, highly mobile armored forces.

Additional protection and reinforcement of the buffer region during peacetime is essential to achieve the maximum benefits the tank-free

zone can provide the operational commander. This can be most easily and economically achieved by selective use of well-constructed obstacles and fortifications. Recent Department of Defense studies continue to assert the effectiveness of a strong forward line of defensive obstacles in slowing the advance of an attacker and enhancing the survivability and capabilities of the defenders.³² Furthermore, the actual time to dig in, erect obstacles, lay mines, create roads and bridges, and complete other defensive preparations from a standing start can be measured realistically in days rather than hours.³³ Peacetime preparations are vital. Warsaw Pact commanders will intend to bypass resistance swiftly and head deep for NATO's rear. By reinforcing the most dangerous avenues and passable terrain with obstacles and fortifications, a swiftly advancing enemy would have to decide whether to assault the positions directly and lose valuable momentum, or feel out paths of least resistance. The first achieves the goal of slowing down the enemy to such an extent that he is vulnerable to attack by operational-level assets such as U.S. Air Force aircraft. NATO can also capitalize on the latter by preparing lesser defended "routes" into predetermined killing zones within the depths of the defense.³⁴

The argument offered by the West German government against peacetime obstacle systems creating the impression of a permanently divided Germany can be answered in a positive manner. It is not necessary to build a Siegfried Line of concrete dragon's teeth or a Maginot Line of elaborate fortresses along the IGB to derive the effects of obstacles. Landscaped and walled terraces, reforestation of the forward zone, and strategically irrigated lakes and unfordable drainage canals can be effectively arranged to impede and canalize attacking

armored forces. These can complement the already in-place and politically accepted measures of prechambered demolition sites on roads, railways and bridges. These permanent "obstacles" could be aesthetically pleasing as well as functional in an environmental sense, and would merely "improve" what already exists at low cost.³⁵ A multitude of small, camouflaged reinforced strong points can also be sprinkled throughout the zone to enhance the tactical effectiveness of the obstacles. Such obstacles can also be reinforced with artillery delivered scatterable mines at advanced alert stages. These fortifications and obstacles would not become obsolete like many complicated weapons tend to, thus making them a sound and economical investment.³⁶

Evolutionary advances in western technology also contribute to the viability of the tank-free zone. Precision weaponry already has increased significantly the war fighting capability of NATO forces and enhanced its credibility as a conventional deterrent. The effectiveness of PGMs against armor targets in the 1973 Arab-Israeli War has been well documented. Continued advances in lethality and accuracy has made the prospect of anti-tank defense even more credible. This leads the Warsaw Pact planners to a paradox. Sustained rapid breakthroughs require the use of high speed routes and at the same time reduces the attacker's ability to identify and engage defensive targets. Both of these conditions favor the defenders of the tank-free zone. They allow for the NATO concentration of PGMs, including artillery-delivered mines and helicopter-launched ATGMs, along the same avenues of advance to counter the Soviet breakthroughs. At the same time, the attacker may elect to employ a much slower advance to take full advantage of poor visibility,

smoke, constricted terrain and suppressive fires which reduce the employment effectiveness of the PGMs. However, a slow and methodical advance that does not lead to the quick victory is antithetical to Warsaw Pact doctrine, force structure or political intention.³⁷

So far, the peacetime posture of a tank-free zone and the creative employment of obstacles and advanced PGMs has been shown to offer an increased deterrent as well as a formidable defense. Before discussing the composition and disposition of what the forward and main combat areas of the tank-free zone might comprise, it would be useful to address the question of manpower and force alignment. Defense consultant Steven Canby, a former U.S. Army infantry officer, has explained NATO's military inferiority as due..."to inadequate combat numbers...to provide for both forward forces and (mechanized) operational reserves".³⁸ He offers solutions to the manpower equation which can be reached within present costs and be achievable by the European NATO nations protecting the Central Region in a tank-free zone defense. The key to these solutions involves closely integrating mobilized West German reserve formations into the initial defense structure. This would free up heavy NATO forces to create the great weight of high quality armor required for the conduct of decisive counterattacks and operational counterstrokes. A related effect would be the creation of a credible deterrent of sufficient size and readiness to guard against a preemptive surprise attack across the tank disengagement zone.³⁹ The ten brigades of presently non-NATO committed West German Territorial Forces could be equipped more heavily with ATGMs (in exchange for deploying their assigned tanks behind the buffer zone) and moved into the forward defense zone. Here, they could tie in with

regular NATO main defense forces in a series of mutually supporting and fortified strong points. U.S. Army light infantry forces, currently not assigned to NATO, could also be effectively used to enhance this arrangement.⁴⁰ These innovations could benefit the tank-free defense by actively engaging a larger element of responsive, already trained manpower at virtually no additional cost, and would ensure the availability of larger mobile reserves than is possible under the present forward defense orientation.

The concept of echeloned defense and fighting supported by the tank-free zone would exploit the vulnerabilities of Soviet tactics and the employment of Warsaw Pact armor. The forward zone could be the responsibility of a capable NATO multinational command covering force composed of many small, mobile anti-armor formations armed with lightweight and portable ATGMs. They would locate Pact forward detachments and main force first echelon elements as they travel through the tank-free zone and into the NATO obstacle belt. This force would act as a form of anti-armor cavalry. Main thrust lines and major avenues of approach would be confirmed, and predesignated demolition obstacles executed. These light, mobile forces would screen, delay and harass across the whole front and withdraw through the main defenses.⁴¹

The main defensive zone would be composed of heavier, more strongly armed infantry formations in 360-degree oriented, anti-armor strongpoint positions. They would bog down the mechanized Pact formations and attrite the attacker from all directions throughout the depth of the main battle area using heavier PGMs and area munitions employed at extended ranges and from ambush.⁴² These units, composed of NATO regular infantry, engineer and artillery units (with some support

forces) and additional German Home Defense elements, would occupy and reinforce key terrain and avenues of approach into the NATO heartland. They would disorganize and cripple enemy armored columns, seal off and defeat penetrations, and channelize the battered enemy formations into preselected killing zones for destruction by the mobile armored reserves.⁴³

NATO's armored formations, then, are the key to success. By echeloning defensive capabilities within and behind the tank-free zone, the strengths of each component can be optimized to the style of fighting most conducive to their potentials. The armored units of the Federal Republic of Germany, the United States, Great Britain, the Netherlands and Belgium would constitute a true operational reserve with tremendous potential. Instead of depending upon only the U.S. III Corps and other U.S. mobilization units to provide the armored depth and power of the NATO defense, now all the NATO defenders of the central front could constitute and deploy effective mobile reserve formations within their sectors (out of enemy artillery range) to deliver both the tactical punch and the operational-level mailed fist of power Clausewitz envisioned as an essential and indispensable component of a successful defense. This "flashing sword of vengeance" could be achieved using the existing forces that are on the ground today or scheduled for European-region wartime contingencies. These forces would even act to complement and strengthen the NATO commander's current vision of FOFA. Adoption of a tank-free zone could provide a new dimension to tactical and operational warfighting on the central front.

Canby characterizes such a strongpoint arrangement, backed by a powerful reserve, as a "checkerboard defense" which would..."imbed

attacking armor onto its defensive grid" for annihilation by its own kind.⁴⁴ Strategic analyst Richard Simpkin, a retired British armor officer, supports Canby's conclusions. In Race to the Swift, he describes such a defensive arrangement as a Hammer-Anvil-Net, where the powerful armor reserve is the hammer, the reinforced infantry and its associated firepower as the anvil, and the light forces of (mostly) territorial militia occupying dispersed, platoon-sized strongpoints dispersed throughout the main defense zone as the net.⁴⁵ Both these soldier-theoreticians have concluded that the concept of a tank disengagement zone could offer tremendous advantages to a defender savvy and daring enough to take full advantage of its potentials. As a replacement for the current "layer cake" forward defense and force structure, we can deduce that NATO could profit from such an undertaking. It would achieve the political end effectively with military means and reduces the risk of an early NATO nuclear response. But would NATO be willing to make the investment?

Several factors work against the many of the possible advantages a tank-free zone can afford NATO. The question of verification is one in which political intractability and mutual distrust may not be overcome successfully in the near future. The issue of on-site inspection and continuous surveillance by neutral parties has great promise as a confidence building measure. While NATO may be amenable to such an arrangement, the Warsaw Pact nations will be highly resistant. They already have a great amount of heavy forces forward deployed which would have to be restaged behind the mutual tank-free zone boundary. The fetish for security in and around their kasernes will also be difficult to negotiate away. The deep-rooted concerns for security and deception

ingrained in the Soviet character most probably can never be overcome in spite of increased openness by the West.⁴⁶ The possibility of cheating and hiding forces is still a concern for both sides. The restriction on exercises proposed by the CSCE has greater utility as a negotiating chip. Nations from both sides of the "iron curtain" will insist — and rightly — that personnel from their combat units must be permitted reasonable access to border areas for the purposes of acquaintance and update of plans. Limiting force strengths to single division size for maneuvers within a certain distance from border areas would not pose a threat to either side and easily could be monitored.⁴⁷ This initiative is worth pursuing.

The politics of forward defense are strongly affixed in the NATO defensive mindset. There are at least three good reasons for a forward defense, according to the former SACEUR, General Bernard W. Rogers. First, NATO is committed militarily and politically to protecting all of its territory. This is inviolable in the minds of European members. Any portion of territory given over to the Pact without violent resistance might give them early encouragement. Second, a forward defense ensures the greatest possible depth in NATO on its own soil. Finally, this posture avoids having to retake ground as the attacker is beaten back and expelled from Alliance territory.⁴⁸ Viewed in military isolation, there are sound tactical and operational reasons for adopting a defense in considerable depth for the NATO forward zone, and these have already been discussed. Regardless, the issue is and probably always will be a political non-starter. The tank-free zone, in spite of its web of infantry strong points and net of reinforced battle positions, perceptually goes against the fundamental idea of forward

defense as conceived by West Germany. Population control will be very difficult and the threat of civil panic within the zone will be a strong likelihood if all or most of the 50km wide tank-free zone is used as a battle ground.⁴⁹

There is also the possible danger that employment of a tank-free zone may actually induce the Warsaw Pact to attack for the "quick grab"; that is, to conduct a limited offensive by some of the 25 high quality Soviet and East German heavy divisions directly opposite the Central Region to "steal" a politically strategic chunk of NATO territory within the 50km buffer zone before NATO can engage its powerful mobile reserve. Such a target might be Hamburg. The Pact may then dig in and demand negotiations from a position of strength, and rely upon NATO demoralization and fear of nuclear escalation to give it a favorable settlement.⁵⁰ NATO will not risk conducting a conventional counteroffensive against a numerically superior Warsaw Pact which by now will have deployed the remainder of its first strategic echelon and elements of its second strategic echelon more forward into zone; postured in a much better position to threaten NATO with the possibility of an unstoppable offensive across the entire IGB. This is an even worse scenario for NATO to resolve. The tank-free zone might just be used by the Pact as a weapon against NATO.

The issue of obstacles and fortifications for the West German frontier region deserves favorable consideration even without adoption of a tank-free zone. Landscaped obstacles that provide natural and aesthetic benefits should be amenable to German political reasoning. Properly emplaced, these systems can significantly enhance mobile operations by slowing down and bunching up the attacker, thus greatly

reducing the possibility of a potentially lopsided meeting engagement on the frontier. Obstacles will also confuse and delay the vital reconnaissance eyes and ears of the Warsaw Pact steamroller, the forward detachments.⁵¹ The political resistance to such construction proposals will certainly be strong and vocal, but responsible leaders of the Federal Republic must be won over to the wisdom of this recommendation. It would be a sound investment regardless of the tactics or doctrine employed in the NATO defense.

The manpower problem is more difficult to solve. The tank-free zone concept is dependent upon the use of a sizeable portion of the German territorial militia to augment the existing NATO infantry forces within the buffer zone. Employment of these forces forward into fixed positions will deny their use or reuse later to protect against other dangerous Warsaw Pact attacks deep into NATO territory. Armored columns may still manage to get through the tank-free zone defenses and into the NATO rear. Currently, only these non-NATO committed territorial forces and incoming mobilization units from the United States will be in position to deal with such threats. The same holds true for the neutralization and removal of Pact airborne and airmobile insertions deep into NATO terrain and onto key targets within NATO's rear areas. Employing the great bulk the German reserves into the most forward defense zones will weaken this capability to respond. To satisfy rear security requirements and provide forward defense augmentation, a significantly larger number of reserve forces will be needed. This will not be near-term achievable. Politically, it will be ruinous to the current German government to undertake such a measure. A portion of the standing German army today is filled out by activated reservists to

maintain its field strength. Heavier conscription and longer reserve commitments are the logical solution to the German demographic shortfall. Without a genuine threat to the nation, this will not be a plausible political undertaking for the Federal Republic today.⁵² Finally, the demands for conventional regular infantry necessitated by adoption of a tank-free zone will require a proportional increase in total numbers by all the NATO Central Front force contributors. This would also be too large and bitter a pill for the Alliance to swallow at present. Significant manpower increases will be considered unattractive and politically infeasible.

The greatest weakness of the tank-free zone concept is the heavy reliance upon technology, especially PGMs and state-of-the-art AT weapons. Current generation ATGMs are susceptible to a number of conditions, including smoke, fog, severe weather and electrical power line interference.⁵³ In addition, it will require significant defense expenditures to equip NATO infantry with the larger numbers of PGMs needed to provide a viable tank-free zone defense.

Strategist Philip Karber has made an even more compelling case against PGMs by comparing their effectiveness to the capabilities of the newest generation Soviet-designed protective measure — reactive armor. This protective measure, which consists of inexpensive, bolt-on explosive armored boxes fixed externally to Soviet main battle tanks, works to defeat almost all conventional missile and gun rounds except the high velocity, solid shot (depleted uranium) tank rounds currently available in limited quantities in NATO armored forces.⁵⁴ Virtually every ATGM in the NATO inventory, and AT main gun round using the shaped charge (HEAT) round, has been made virtually obsolete and ineffective by

reactive armor. This armor is currently being outfitted on all modern Soviet tanks (T80 and T64) in the Warsaw Pact. Of the approximately 17,000 Pact main battle tanks forward deployed in the Central Region today, over 9500 have already been fitted with reactive armor. This number is 3000 greater than the total number of tanks NATO currently has forward deployed equipped with spaced or laminate armor, the much more expensive NATO equivalent.⁵⁵ With the exception of obstacles and minefields, against which all armored forces are more or less equally vulnerable, reactive armor can only be defeated with certainty by one ground weapon system — the most modern NATO main battle tank with the 120mm smooth bore gun firing the high velocity solid shot round. Therefore, only the best NATO tank can counter the best Warsaw Pact tank. A web or net of light infantry armed to the teeth with PGMs cannot do this under our present technology. Because an infantry-packed AT weapon capable of defeating Warsaw Pact reactive armor is not currently available or in design as a near-term replacement, the inescapable conclusion is that the tank-free zone concept cannot be employed in the technologically foreseeable future without hazarding the defense of NATO in the Central Region.

A further indictment against the concept of an infantry-dense defensive zone concerns the use of dug-in and protected light infantry as an alternative to the more expensive, mobile mechanized forces currently forward deployed. Doctrinally, the Warsaw Pact will attempt to rush deeply and swiftly into NATO territory with massed armor penetrations. Their armored thrusts will certainly be accompanied by mechanized infantry able to dismount, locate, fix and eliminate the strongpoints of NATO AT forces. In addition, by doctrine the attacker

will also employ an extravagant weight of artillery munitions onto the sectors chosen for the main penetrations. Once pulverized by withering fire or driven out of their positions by Pact infantry, it is unlikely that the NATO dismounted infantry will be able to regain lost territory from armored or mechanized forces. The ATGM defense required for a successful tank-free zone defense reflects a highly attrition-oriented mentality. Only the tank can provide the essential capability for mobile ground warfare that will be needed even in the most forward areas of the NATO defensive sector from the earliest moments.⁵⁶

Karber recommends adoption of a heavy NATO command covering force to screen in front of the main defenses as an alternative to both the current NATO defense and the concept of a tank-free zone. This would consist of approximately two dozen existing, conventional armored-mechanized brigades drawn from the active units of the national forces defending the Central Front. Reinforced heavily with army attack aviation, artillery and electronic-warfare assets, this international command covering force would be 100 percent mobile, manned, equipped, uploaded, and deployed on a full time basis in the border frontier areas.⁵⁷ The U.S. Army armored cavalry regiments are examples these kinds of forces. They provide a capable and effective screen, identify and locate enemy penetrations of the border, and withdraw under contact through the main defensive zone to take up positions in the rear as counterattack forces for reemployment. They are much less vulnerable to Pact indirect fire weapons which can effectively overwhelm static infantry. Finally, they fight hard while on the run and provide their own protection. Such capabilities are not possible of dug-in infantry. Only tanks can provide this capability to the ground army.

A capable heavy (armored) reserve is an essential component of the tank-free zone defense. However, it is risky to keep all of this force protected and unused at the onset of fighting and unemployed only when the battle has developed fully. The Pact of the late 1980s is too strong and capable to misjudge or underestimate. Some armor will be needed up front in the forward combat zone as well as in the rear in operational reserve. Fifty kilometers is too deep to ensure the maximum effectiveness of tactical counterattacks taking place against the exposed flanks and rear of enemy armored columns. A large mobile reserve must be maintained to effect the decisive counterstroke against the enemy center of gravity. Strategist David Greenwood sees the need for creating more heavy reserves for employment with the U.S. III Corps in what he calls a "piano keyboard" arrangement; where the white keys represent the current, slightly reconfigured and politically acceptable NATO "layer cake" and the black keys signify the augmented operational reserves, the armored corps.⁵⁸ He recommends that these two or three additional formations be exclusively German, and be made up primarily of reconfigured and more heavily armed German territorial forces. This proposal recommends a slight increase in the total German force manning levels, one which would stand a fair chance of political approval. It would call for using territorial and reserve forces within the geographic mission areas they are currently intended, thereby improving a capability that already exists.

FOFA is the most current SACEUR vision for defeating a Warsaw Pact attack. The purpose of FOFA is to... "attack with conventional weapons those enemy forces just behind troops in contact to as far into the enemy rear as target acquisition and conventional weapons systems

permit."⁵⁹ This is good, but NATO forward defenses must stop the initial offensive surge and force the Warsaw Pact attackers into costly and exhausting attrition battles where they are forced to commit second echelon forces ahead of schedule. The anti-tank capability of a tank-free zone defense can be neutralized substantially by Soviet-built tanks fitted with reactive armor. The first priority, then, for deep attack must be the follow-on forces of the operational echelons comprising the first strategic echelon.⁶⁰ If the early battle is lost, the effect of deep air and artillery interdiction of the Pact second strategic echelon is irrelevant. Only the use of tanks forward in sector for tactical counterattacks and massed in the rear for the counterstroke can do on the ground what FOFA can do at longer range.

Samuel P. Huntington has recommended still another solution to the vexing problem of NATO forward defense. Carrying Clausewitz' vision of a "flashing sword of vengeance" even further, he recommends NATO reorganize for a doctrine of conventional retaliation into Eastern Europe against high value targets in immediate response to an attack.⁶¹ Such an action might be directed against Leipzig or Dresden. The threat of declared conventional retaliation against Eastern Europe will strengthen deterrence without risking nuclear escalation. Understandably, this concept is a political hot potato at present. Nevertheless, it has military merit. A retaliatory offensive into East Germany or Czechoslovakia can be aimed at one of the few Pact weaknesses — their inflexibility to deal with a high degree of uncertainty and surprise in a situation over which they have lost control. Indirectly it will threaten the Pact center of gravity, the armored formations, by hitting its sustainment bases and interior lines of communications, and

putting the westward moving columns into increasing jeopardy.

The retaliatory offensive would be executed as soon as possible after the enemy launches his main effort. As an example, it might be conducted by elements of U.S. and German heavy formations in the south central portion of the defensive zone. Such a declared defensive posture would require the Warsaw Pact to strengthen its own defenses which, in turn, will draw from and weaken its offensive capability. There is no good reason why a politically defensive strategy, still disclaiming the preemption option, cannot have a declared offensive outlook.⁶² It is compatible with the doctrine of AirLand Battle and the concept of deep interdiction. To conduct a retaliatory offensive, forward deployed NATO armored units will only require increased prepositioned stockpiles of ammunition, fuel and spare parts.

These and associated attack aviation assets will have to be in place and ready to go, as they currently are in extant GDP defense plans. Although this solution accepts great risk by leaving a portion of NATO territory lightly defended when the heavier formations counterattacked eastward, the moral effect of this action can have a very great impact. It will strengthen NATO's resolve while weakening the Pact's. The deterrent effect will be greater than that of a tank-free zone. It will pose a credible and immediate threat against aggression.

SECTION V: ASSESSMENT

From an academic viewpoint, the tank-free zone concept has many worthwhile aspects to commend it as a serious defense proposal for NATO's central region. However, the stark realities of NATO politics and military capabilities work against it. The issue of verification and inspections, even by neutral parties, will be extraordinarily difficult until both sides willingly forego suspicion and develop an openness to outside intrusion. The concept of forward defense is politically inviolate to the West Germans and not negotiable to military reinterpretation. The "layer cake" defense, for all its faults, does serve a useful political purpose that can be militarily improved by adopting a strong command covering force. The inherent strength the tank-free zone gets from its infantry strongpoints cannot be achieved in the near term until a reliable, portable ATGM capable of defeating Soviet reactive armor is developed and fielded in NATO. Other technical trends such as a directed energy weapon also militate against it. Only the tank can currently accomplish these requirements for conventional forward defense.

The viability of the tank-free zone depends upon a major political (and economic) decision by the West German government to strengthen and reorganize its territorial reserves and employ them far forward. As long as the nuclear deterrent is still credible, that nation will not make such an investment. The Alliance probably will support modest defense expenditures to offset nuclear weapon reductions, but will not risk decoupling the nuclear threat from its defense concept. The best economical investment to make in the near term is the fortification of

the frontier region.

"Defeat and restore" will continue to circumscribe NATO doctrine. The tank-free zone satisfies doctrinal and theoretical concerns by offering an even stronger offensive retaliatory capability than the current NATO defense. All other things being equal, the tank-free zone theoretically should make the defense of NATO against the Warsaw Pact viable. It offsets Pact tactics and orients on neutralizing and defeating the attacker's center of gravity. However, Soviet reactive armor defeats almost all Western ground and air launched ATGMs. Artillery delivered mines and anti-tank submunitions are valuable, but cannot achieve the killing effect that NATO armor can. For the present, the tank is essential for both forward defense and for the operational counterstroke, the "flashing sword of vengeance." It is a valid and indispensable part of the NATO conventional defense. A tank-free zone currently cannot achieve NATO's political ends.

NATO should continue to pursue negotiations with the Warsaw Pact to reduce force asymmetries of both nuclear and conventional armaments. Accordingly, it must always keep in mind the end state that it wants to achieve — greater security. There would be great military risk to NATO in accepting a politically attractive proposal for a tank-free zone for the Central Region. The concept will have utility only in the future when a significantly advanced anti-tank weapon for the infantry is deployed in great numbers. The concept of a tank-free zone for NATO is not technologically, economically or militarily achievable at the present time. NATO's military leaders must be prepared to express their concerns convincingly to their political masters if they are to avoid what could be a popular political agreement but a military debacle.

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